

FIG. 1

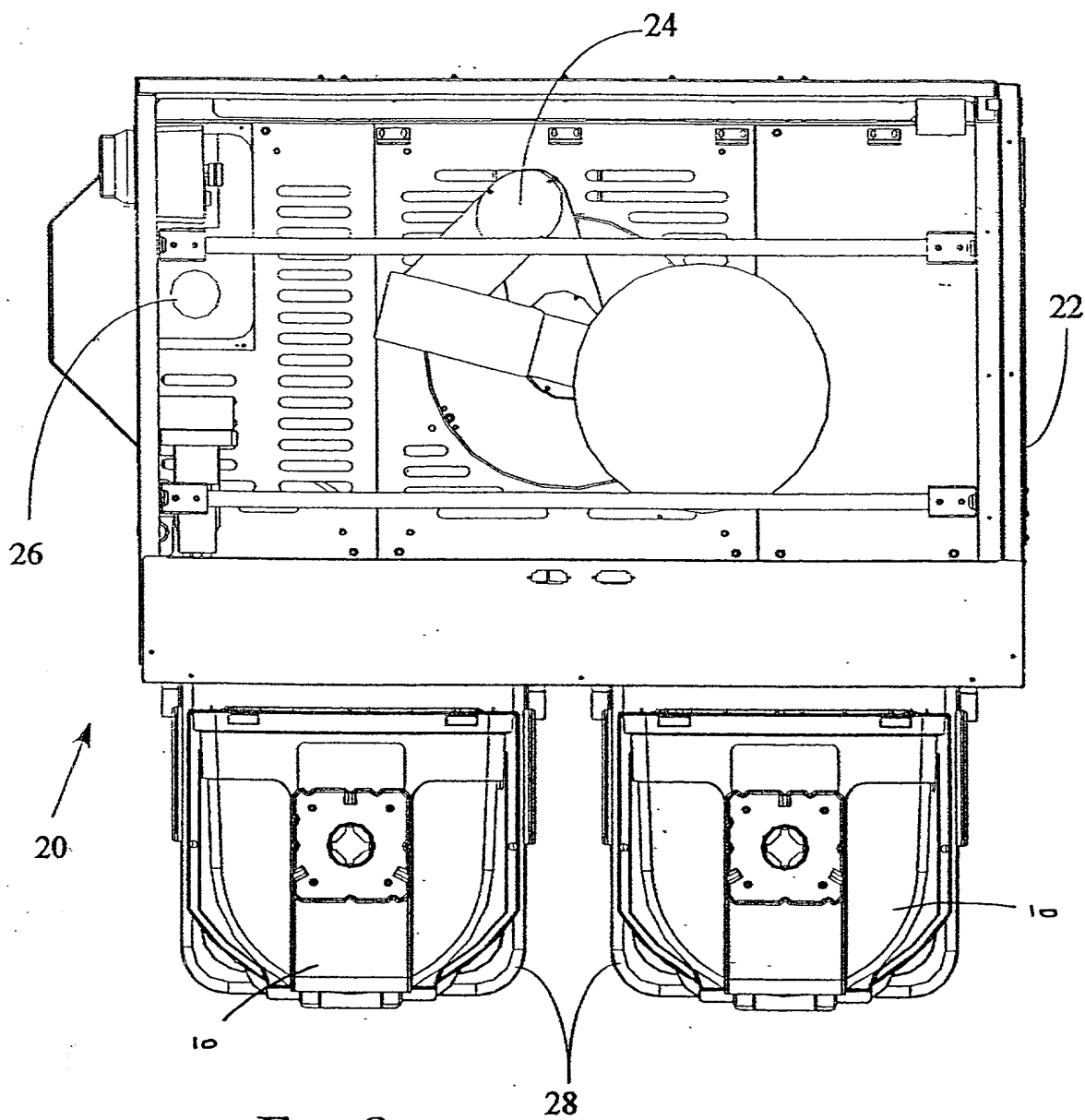


FIG. 2

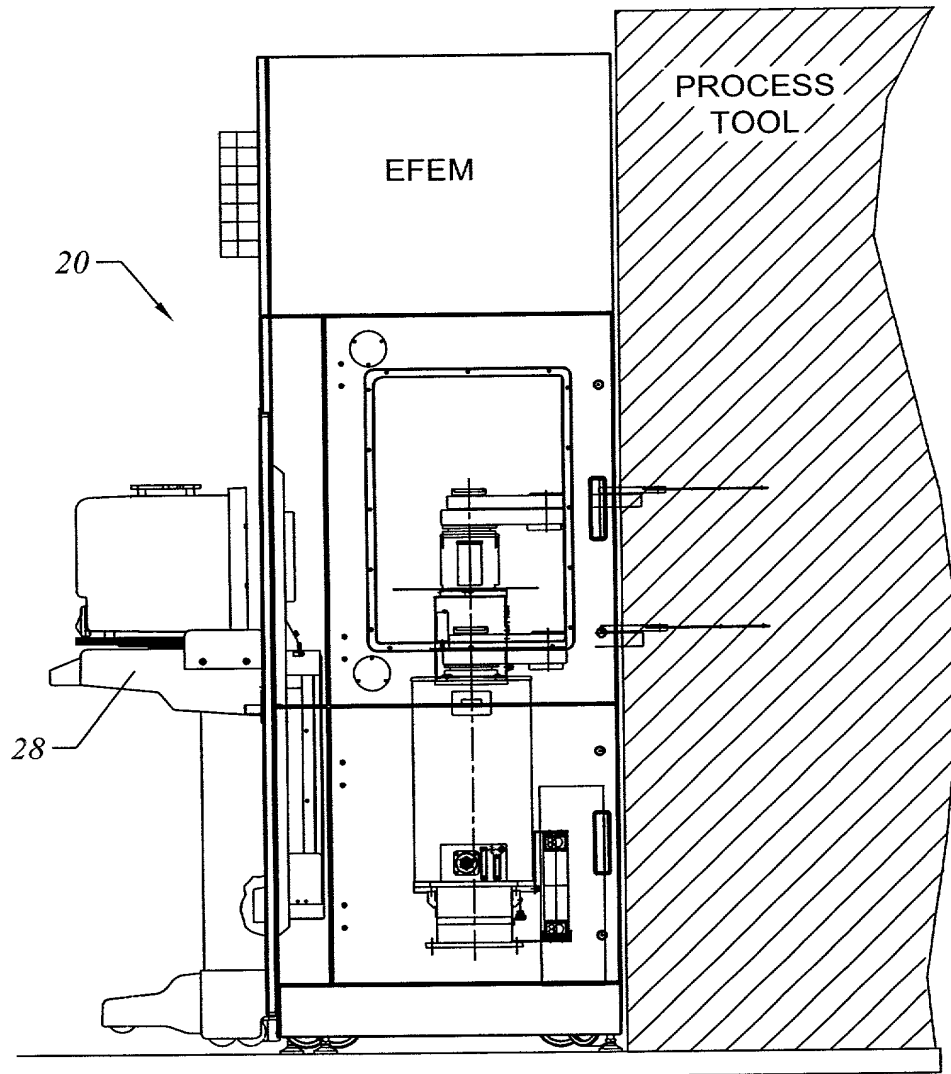


FIG. 3

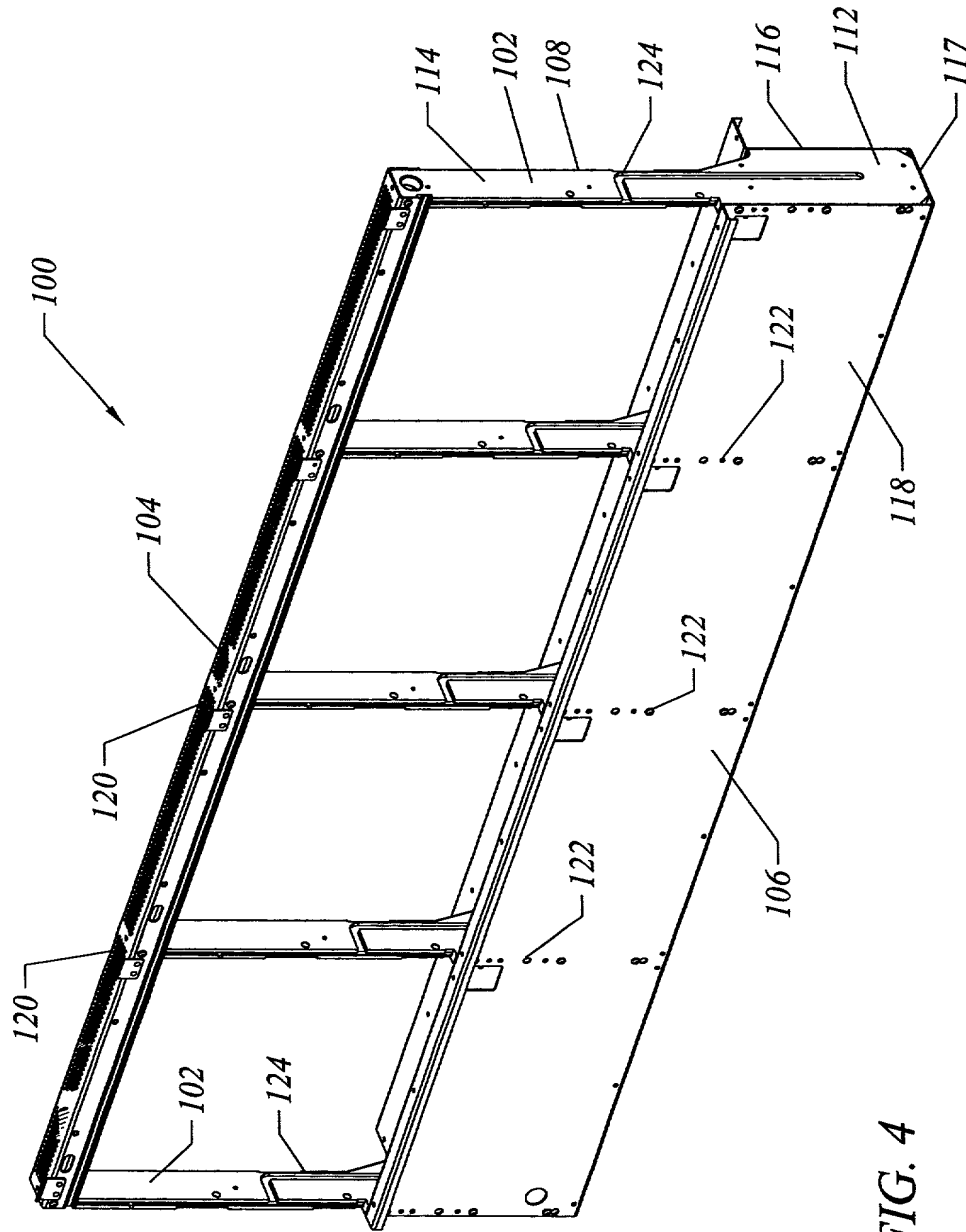


FIG. 4

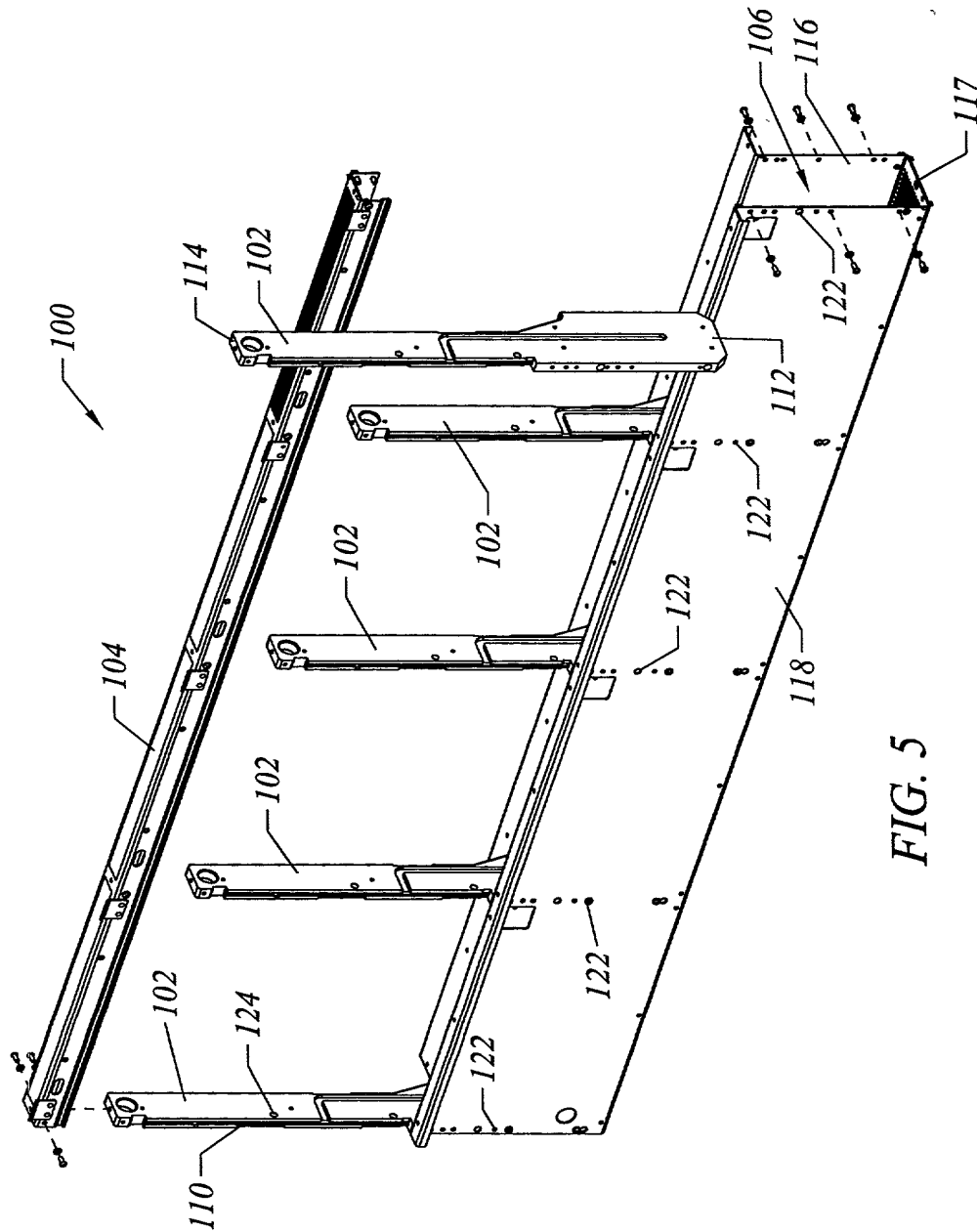


FIG. 5

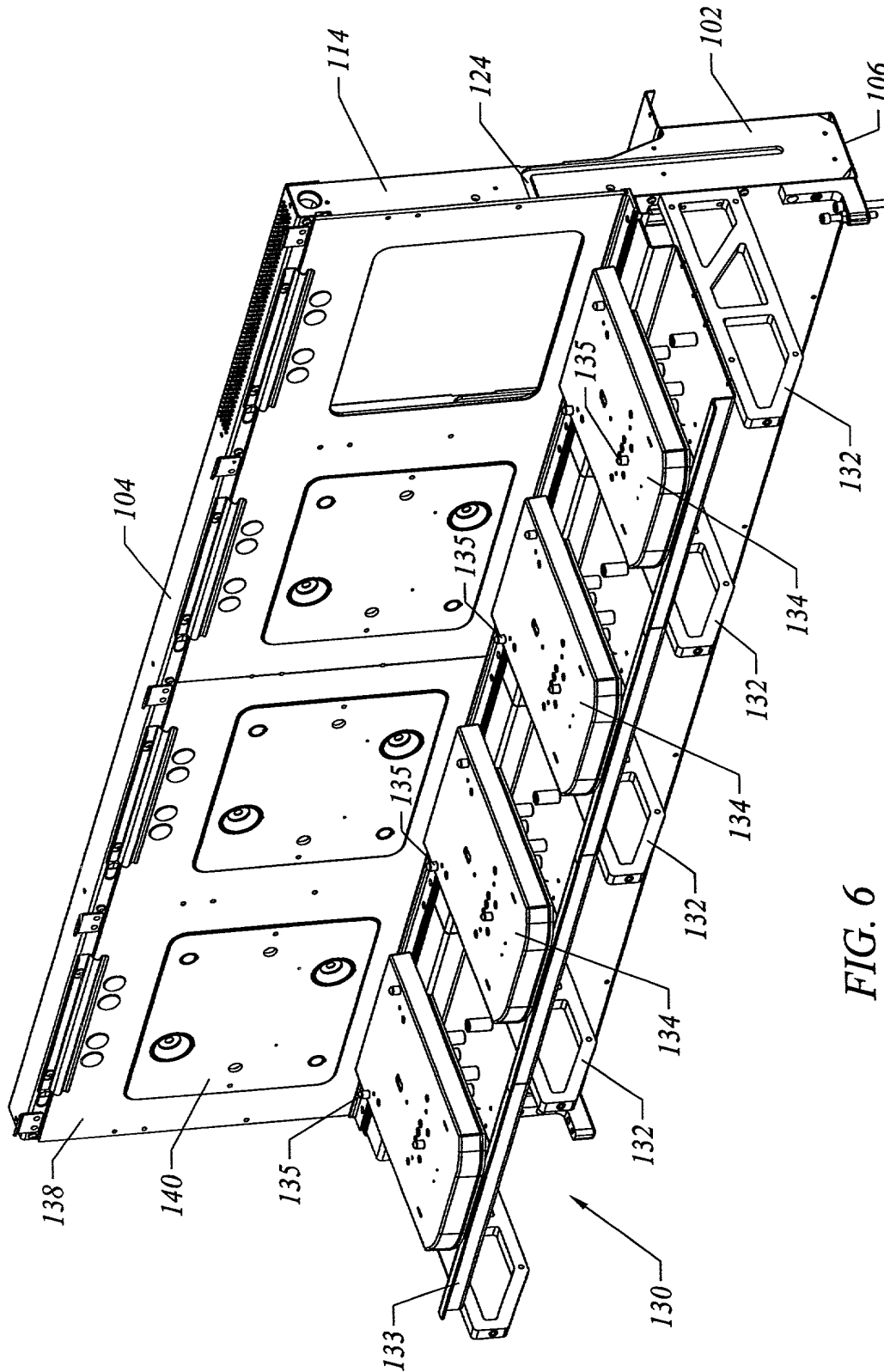


FIG. 6

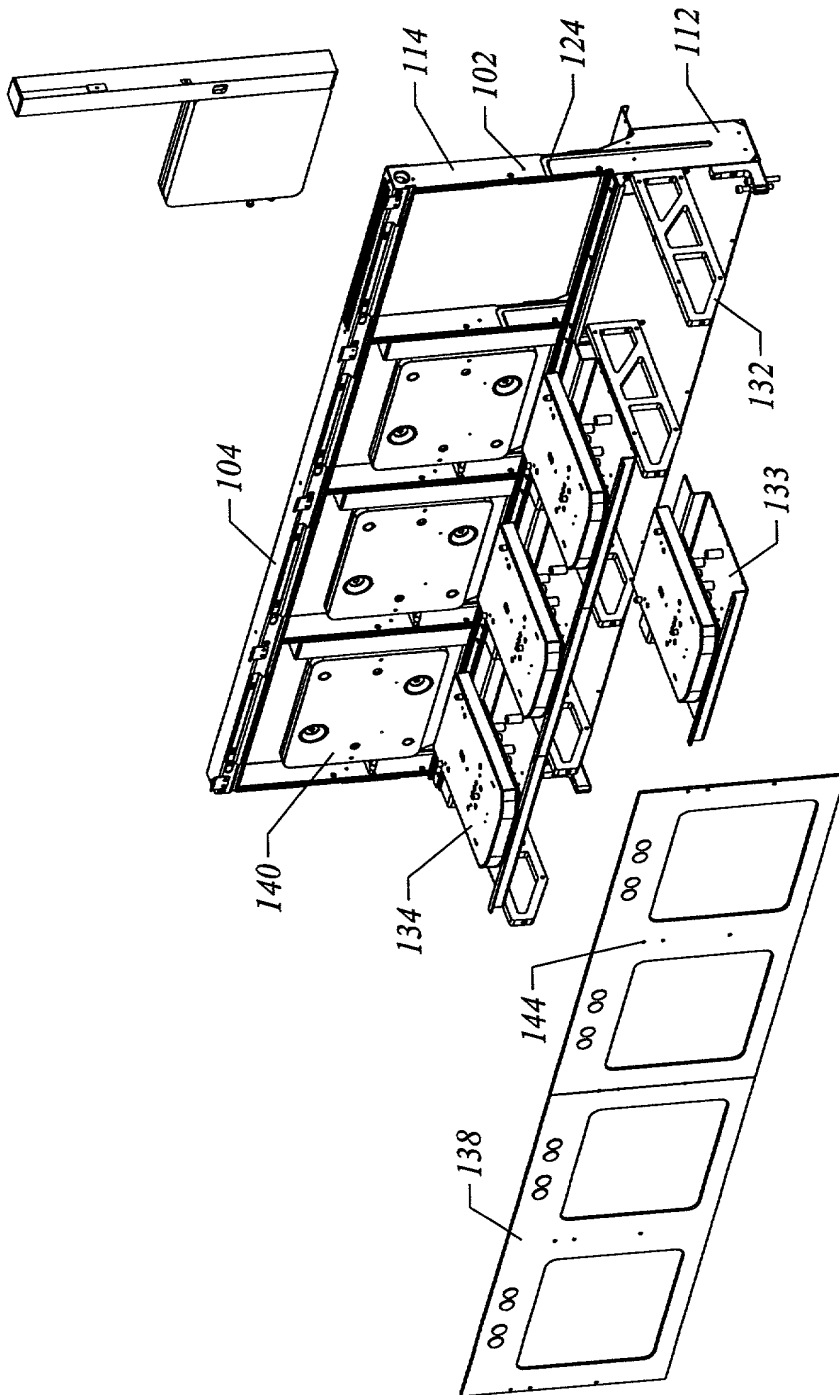


FIG. 7

Title: SEMICONDUCTOR MATERIAL HANDLING SYSTEM
Docket No.: ASYS08197US0 Inventor(s): Anthony C. Bonora
Serial No.: Unknown Attorney: Scott D. Sanford
Confirm No: Unknown Phone: (415) 362-3800
Filed: Herewith Express Mail No.: EL670726215US

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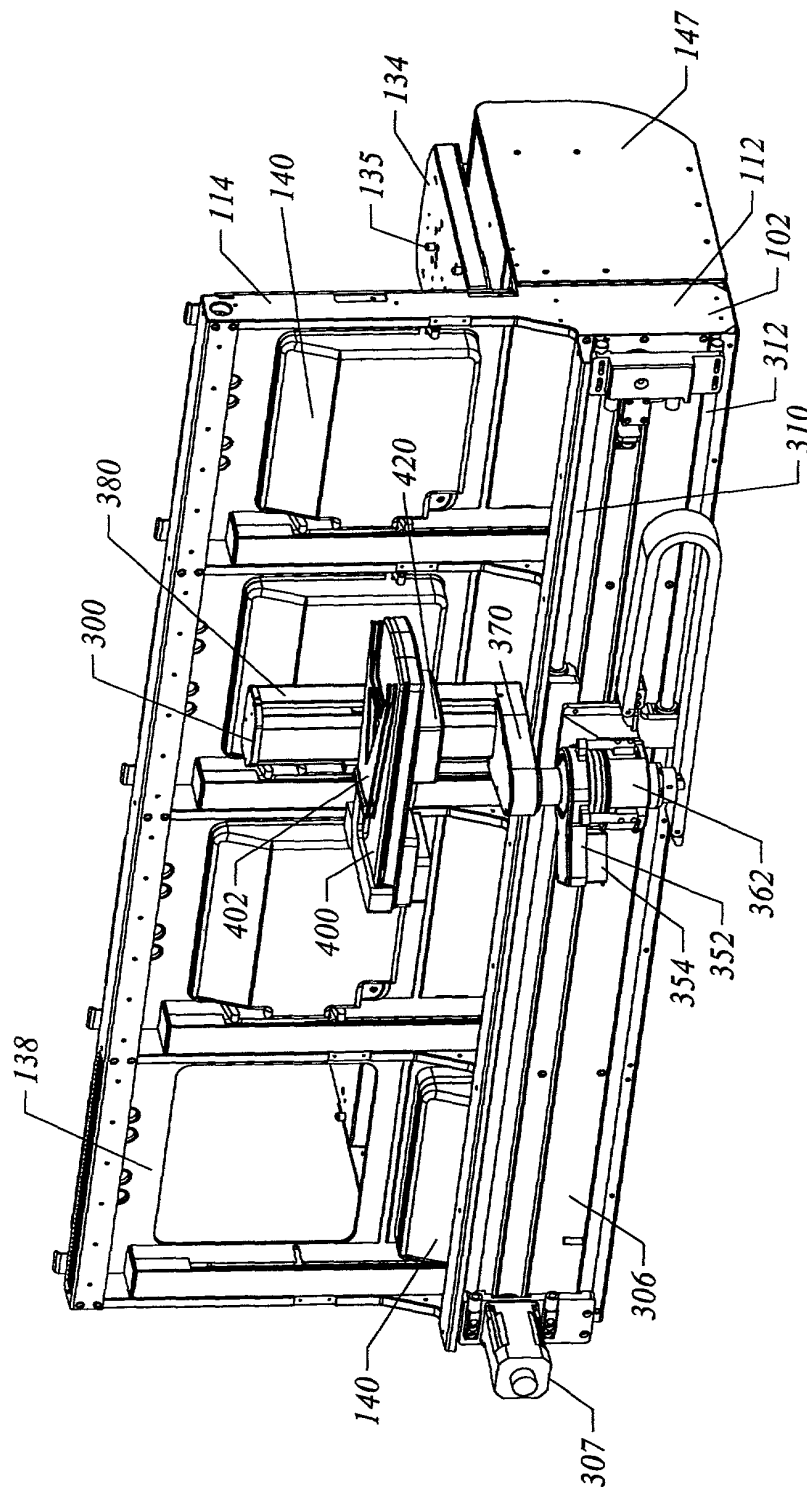


FIG. 8

[illegible]

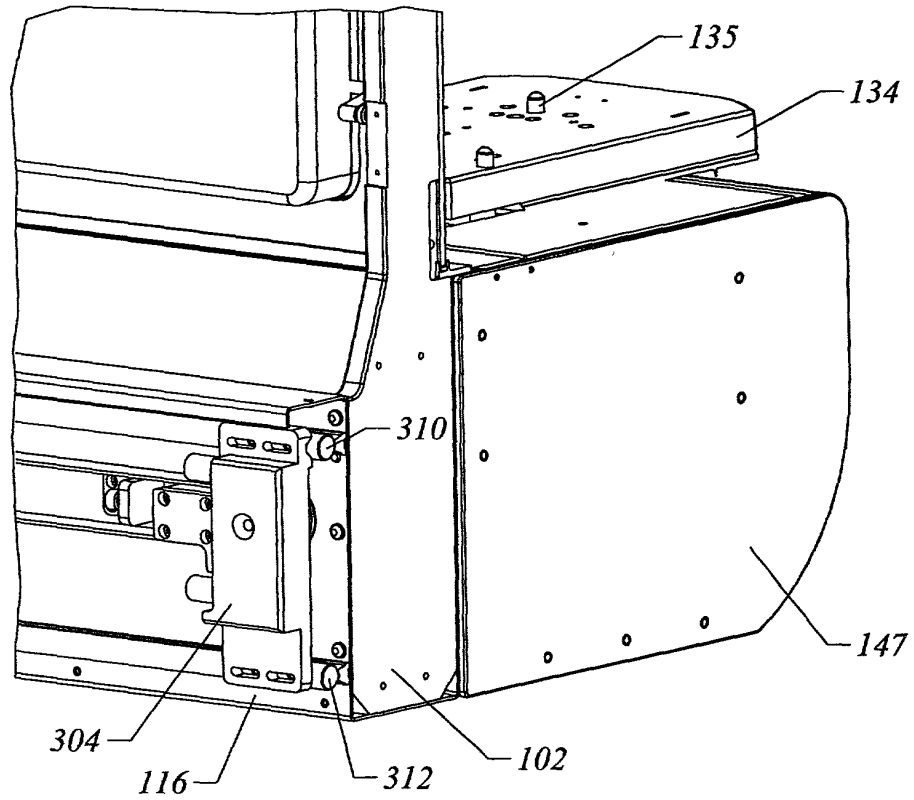


FIG. 9

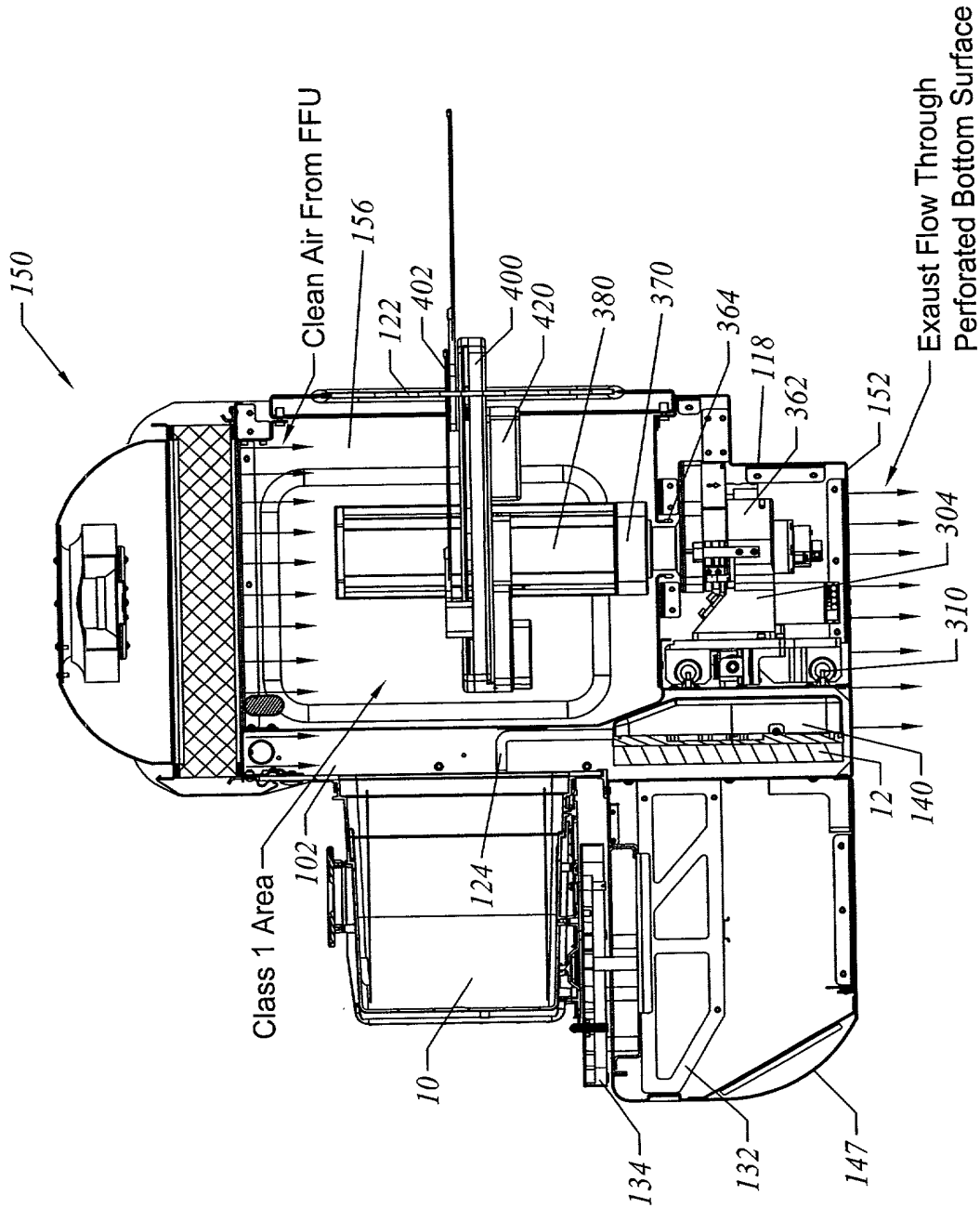


FIG. 10

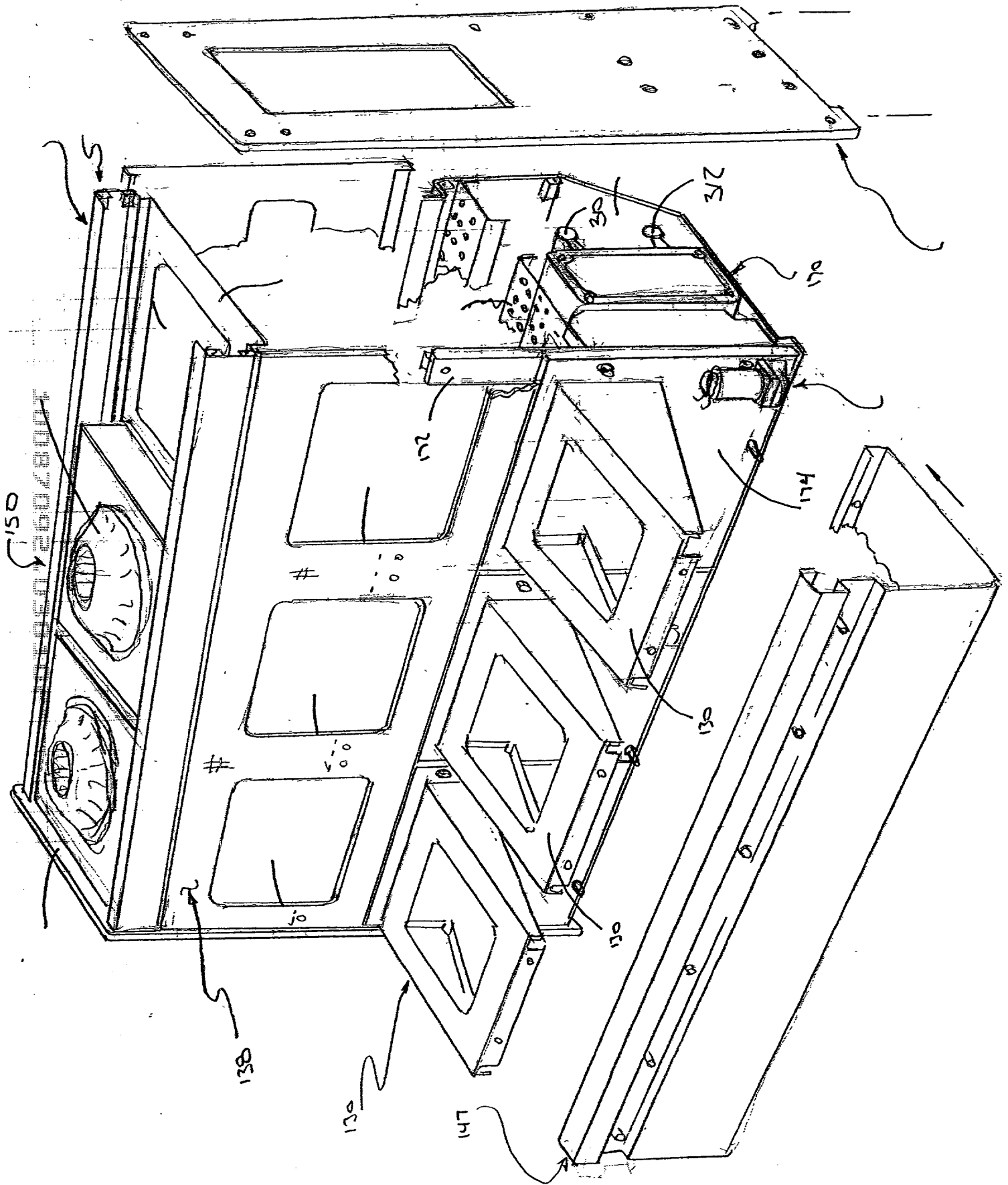


FIG. 11

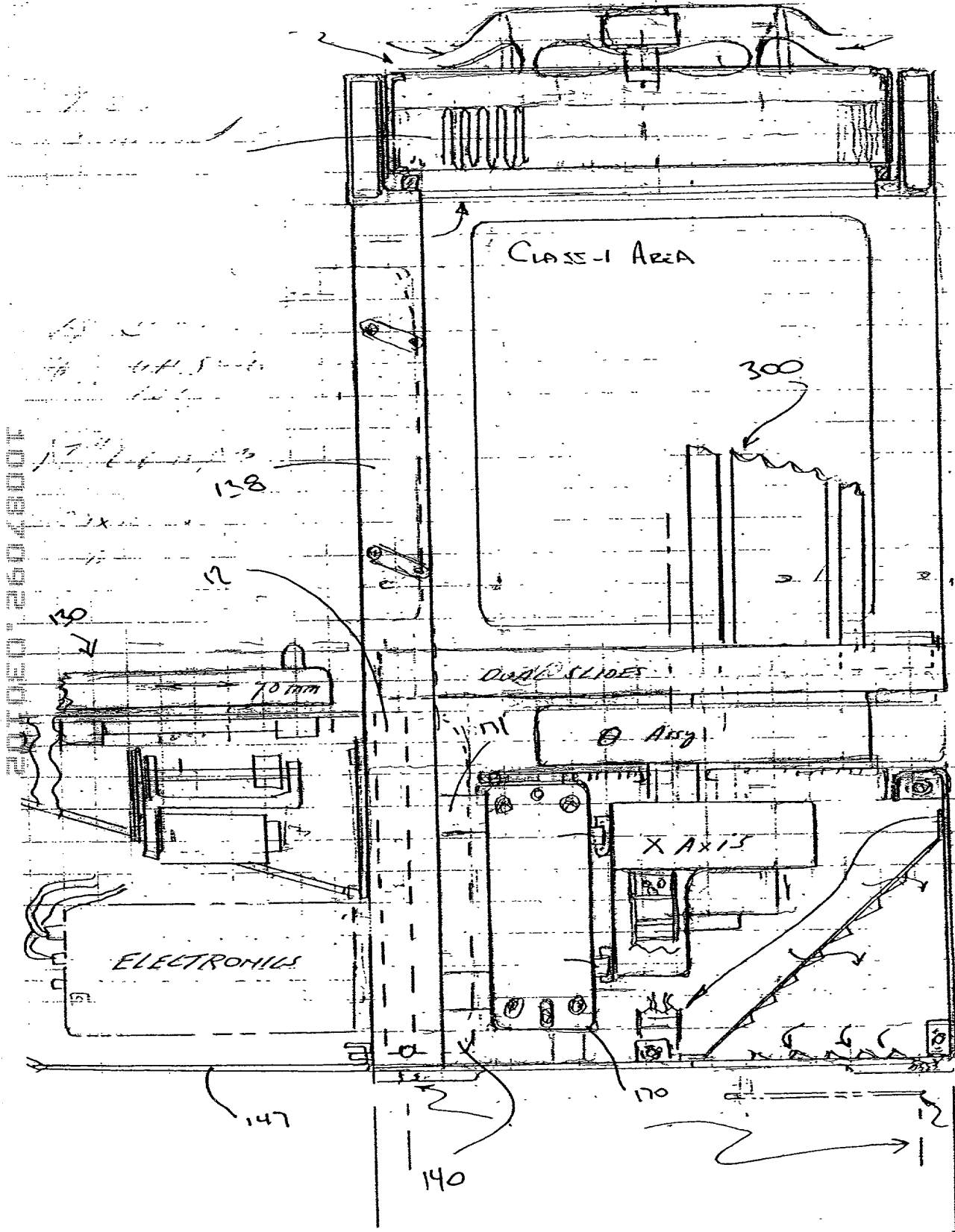


FIG. 12

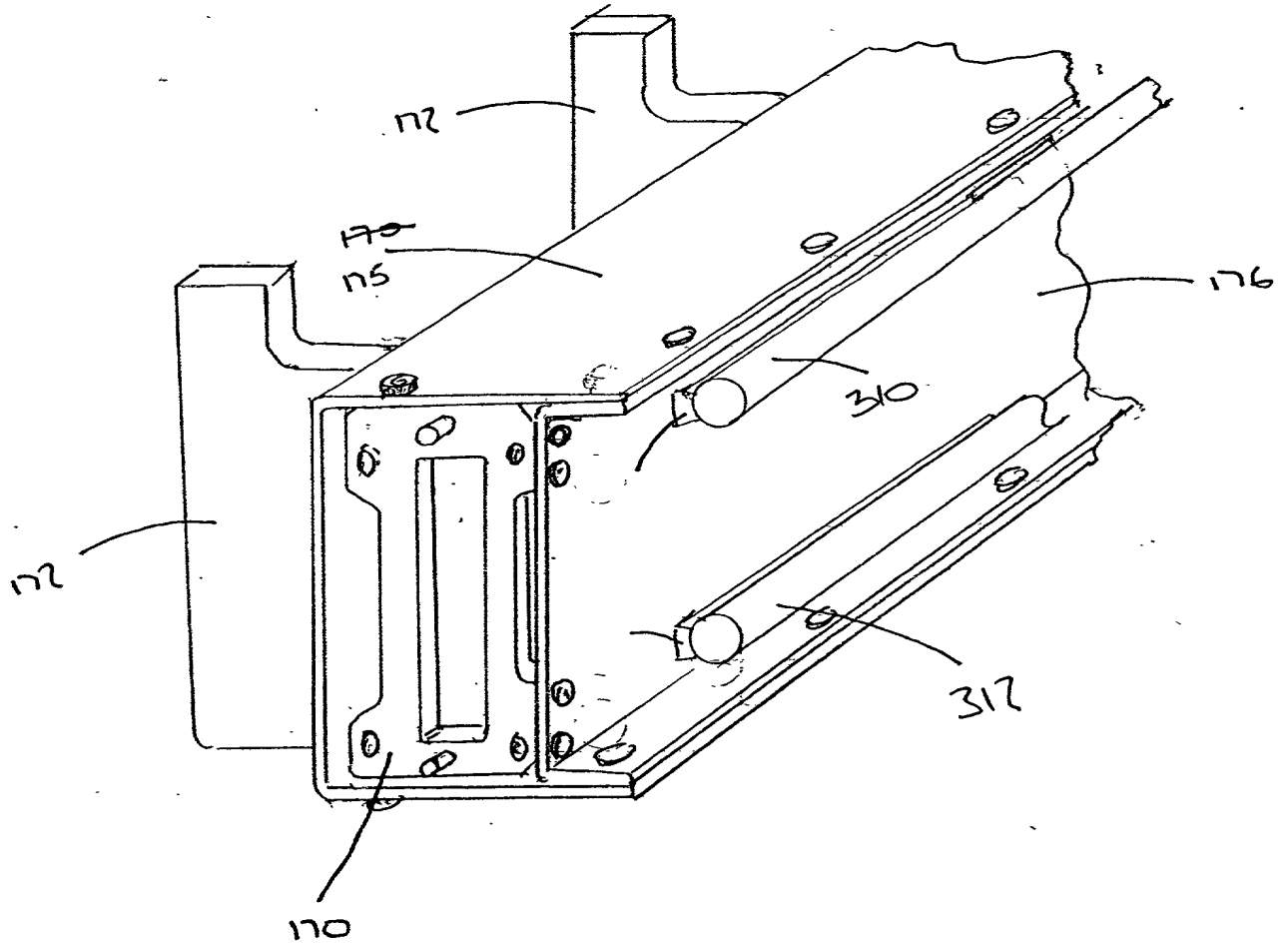


FIG. 13

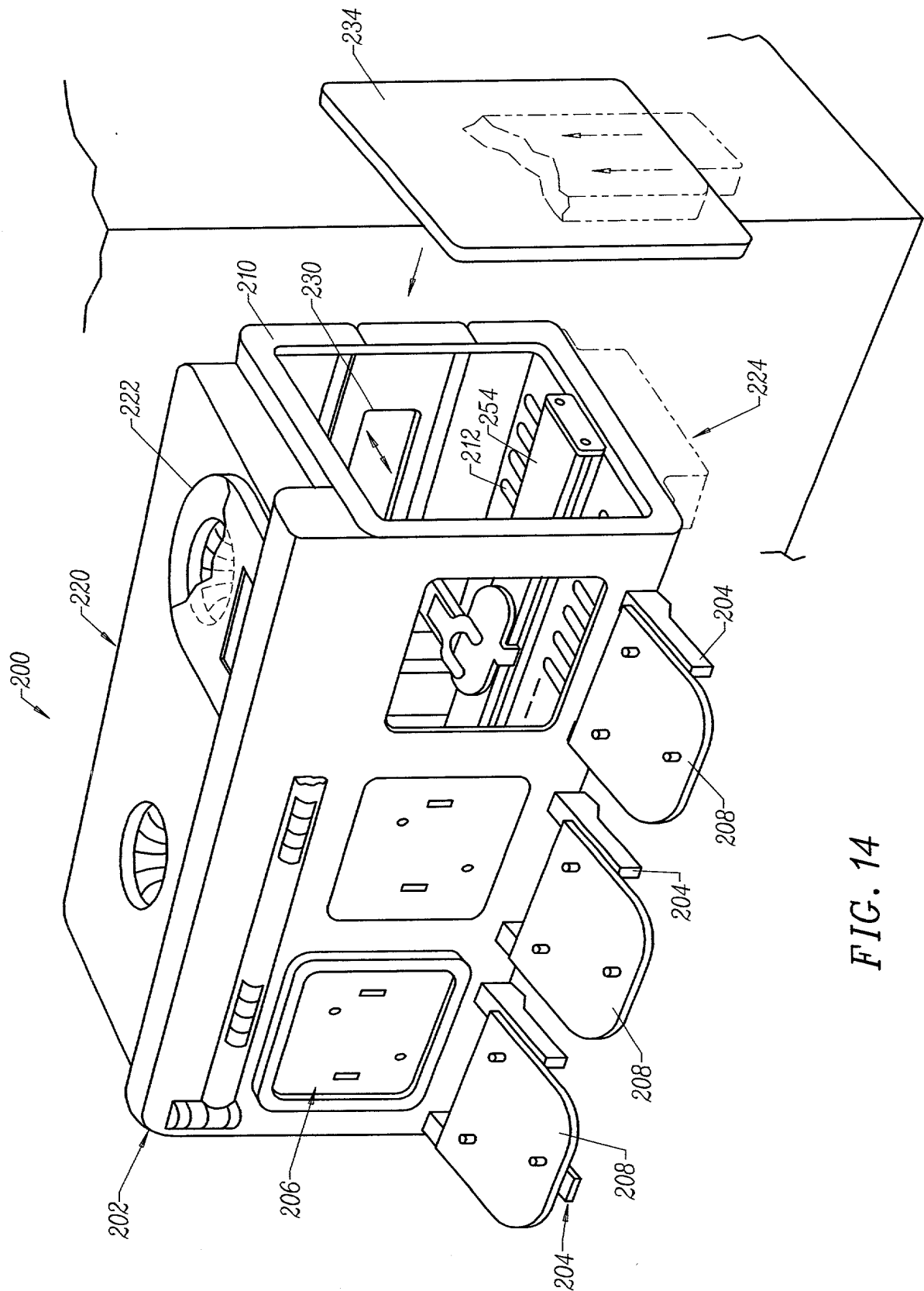


FIG. 14

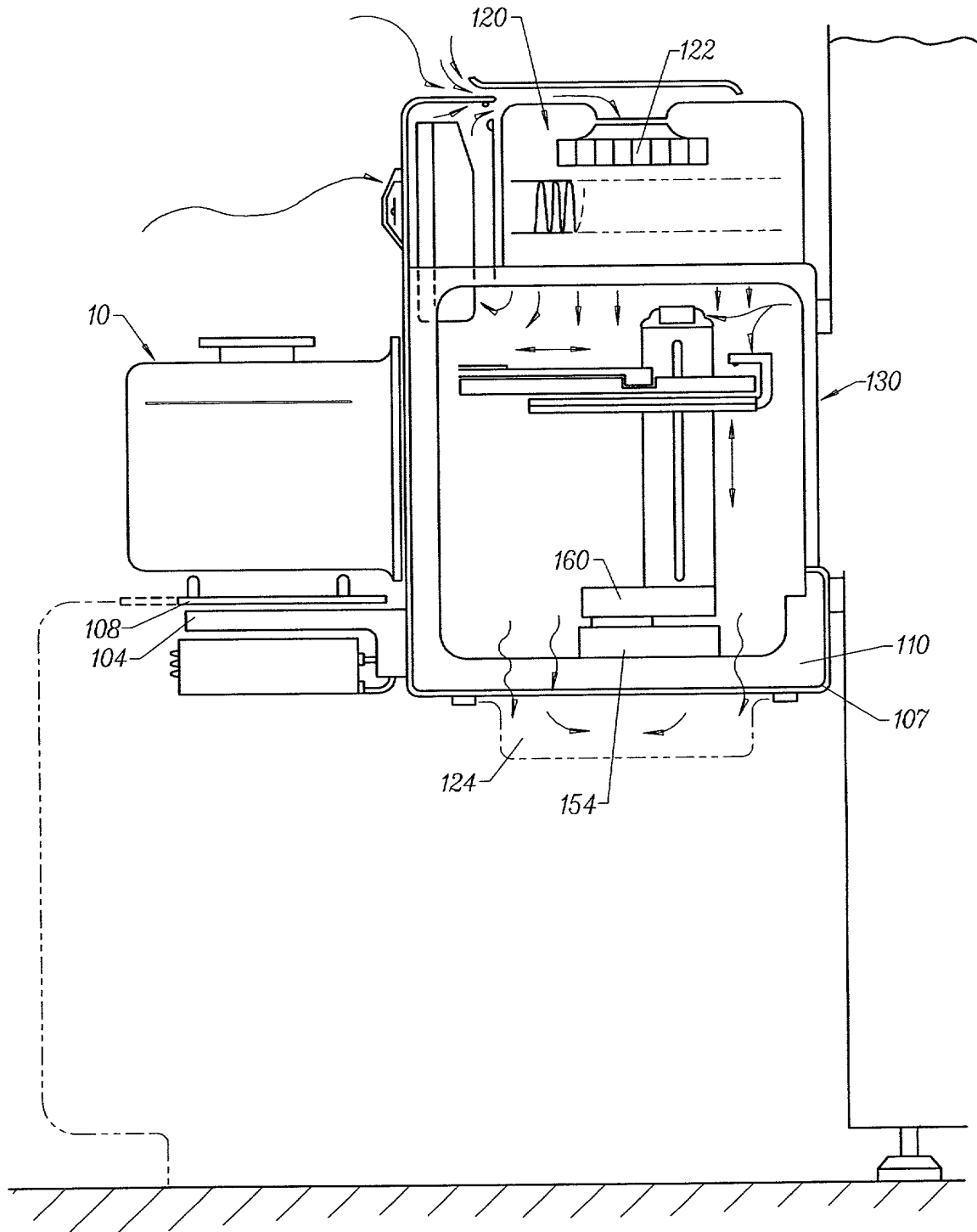


FIG. 15

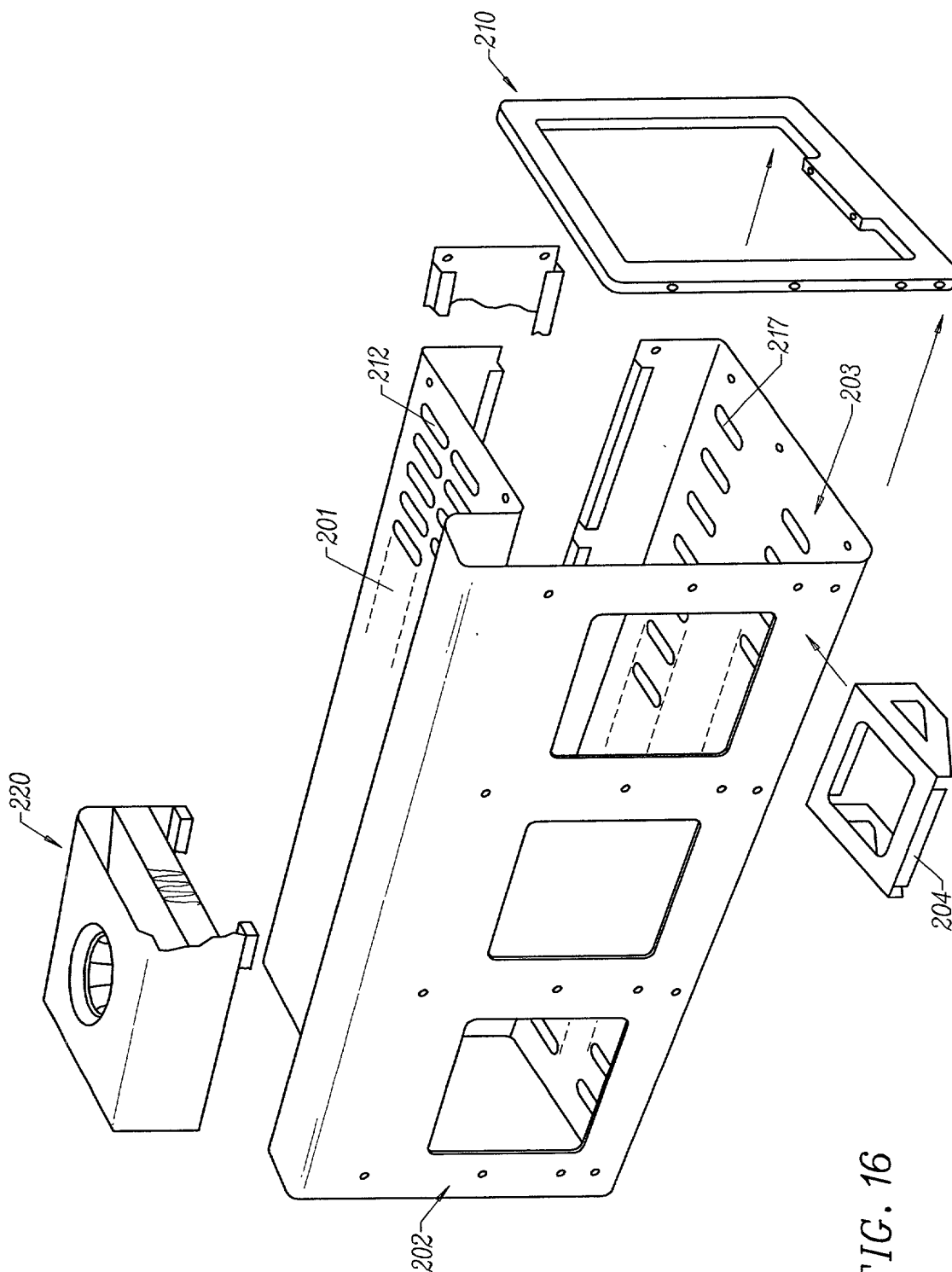


FIG. 16

201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222

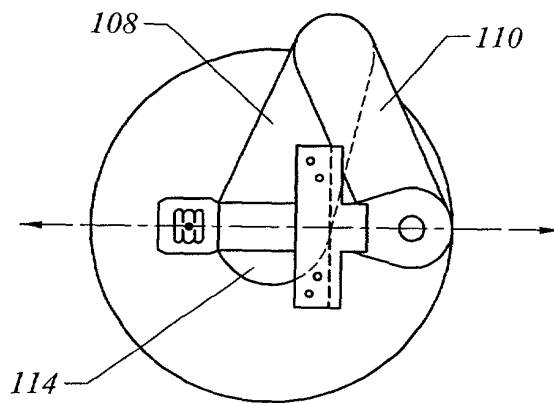


FIG. 17A
(Prior Art)

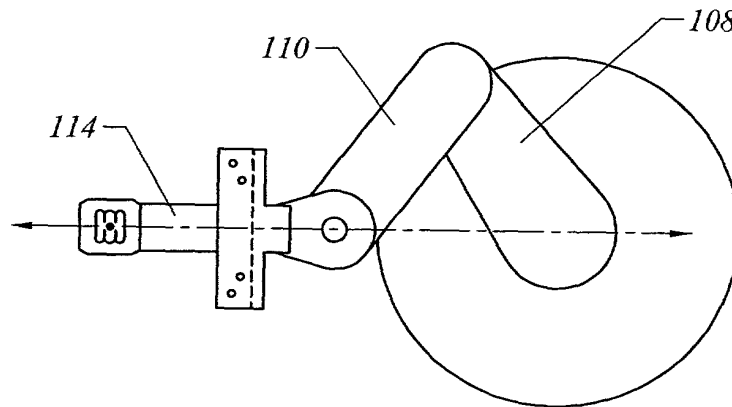


FIG. 17B
(Prior Art)

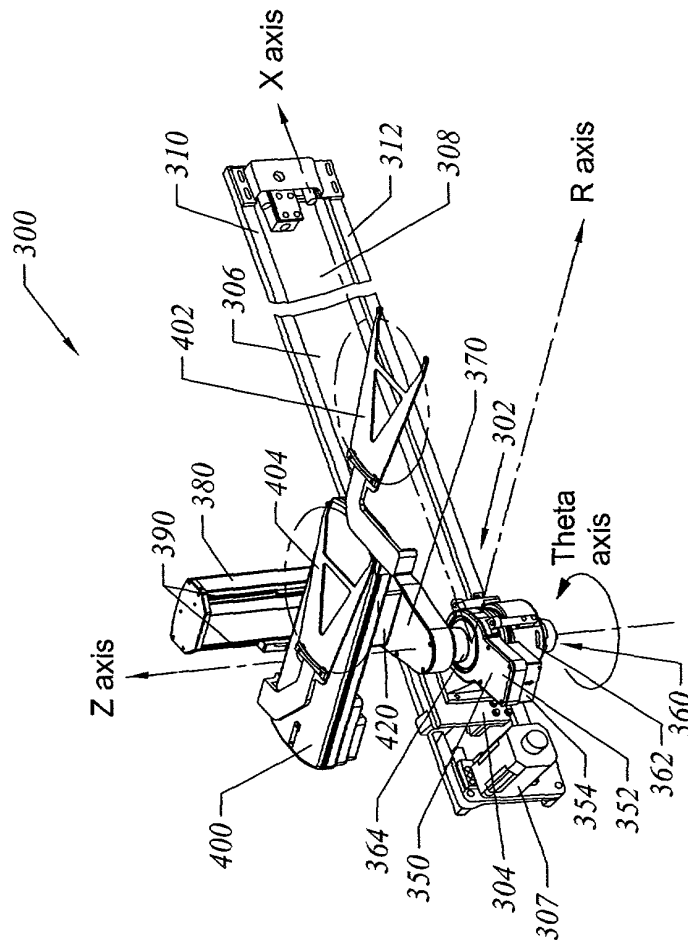


FIG. 18

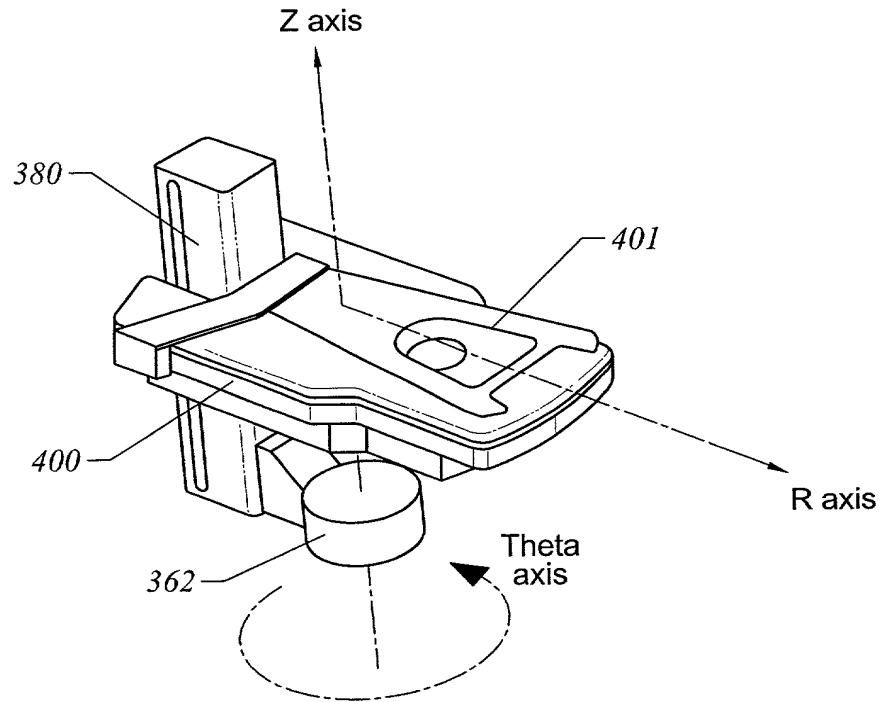


FIG. 20

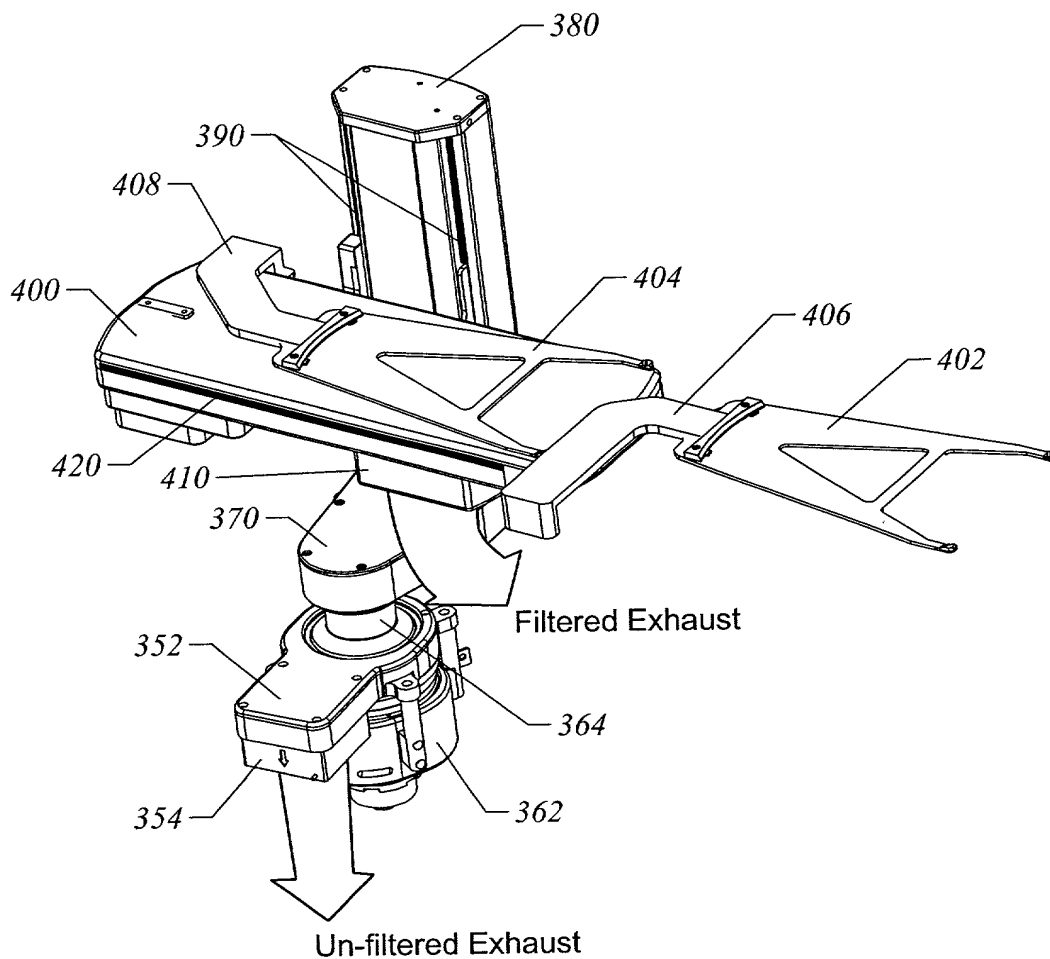


FIG. 21

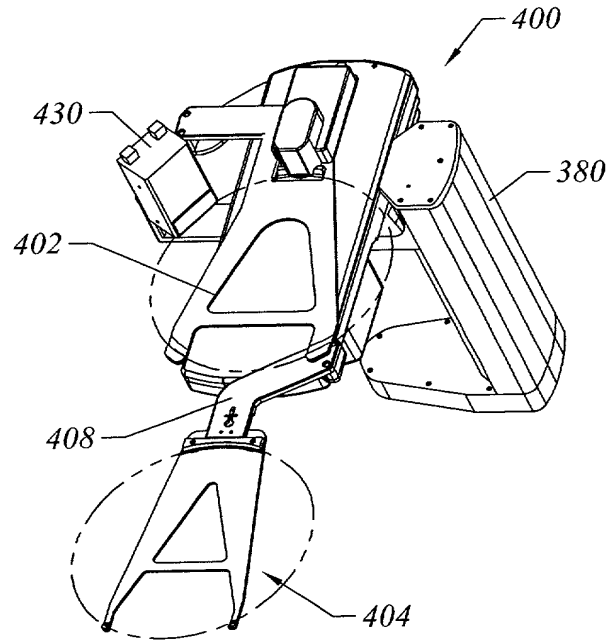


FIG. 22A

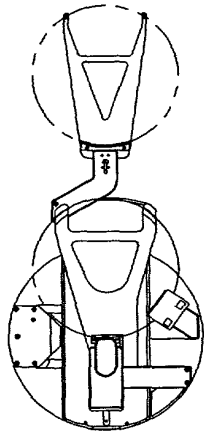


FIG. 22B

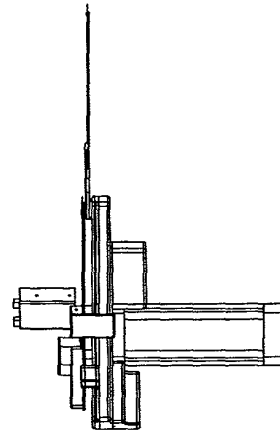


FIG. 22C

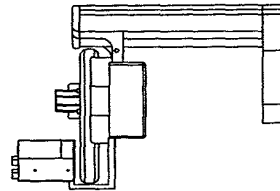


FIG. 22D

FIG. 22B

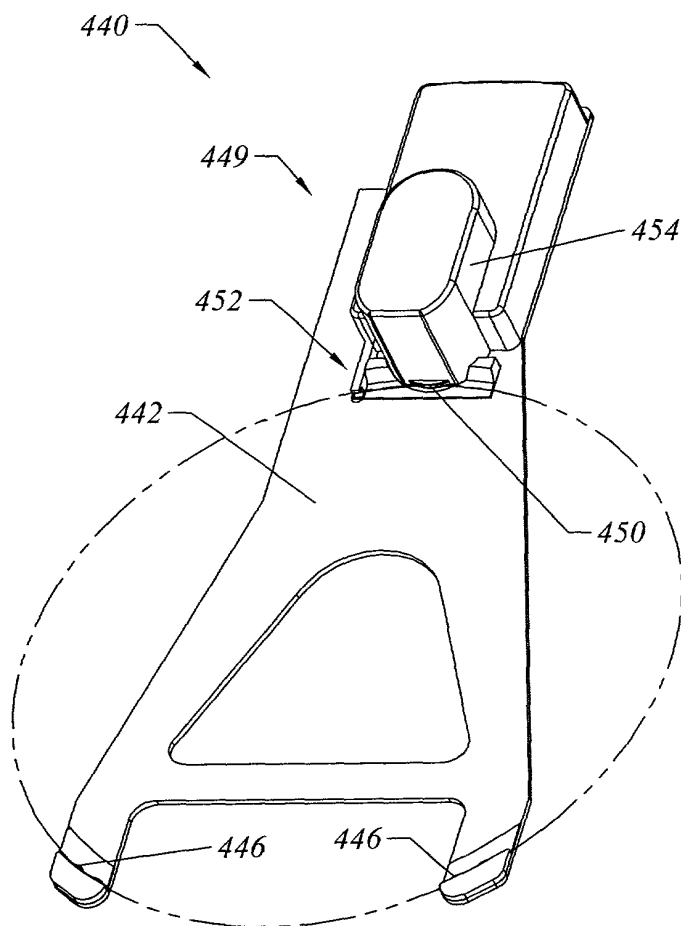


FIG. 23

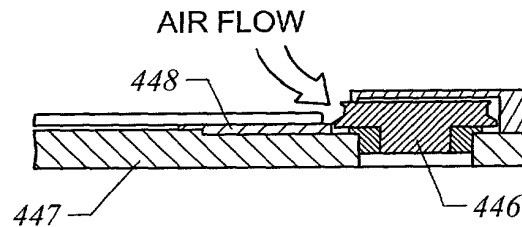


FIG. 24A

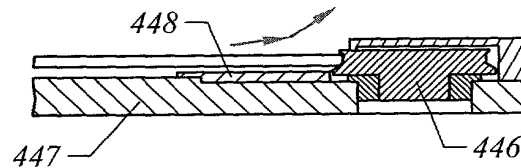


FIG. 24B

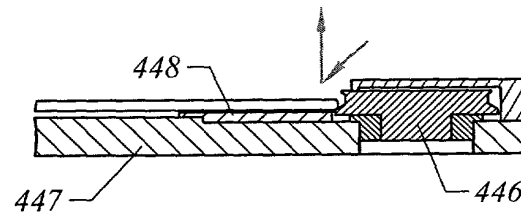


FIG. 24C

10087092.030102

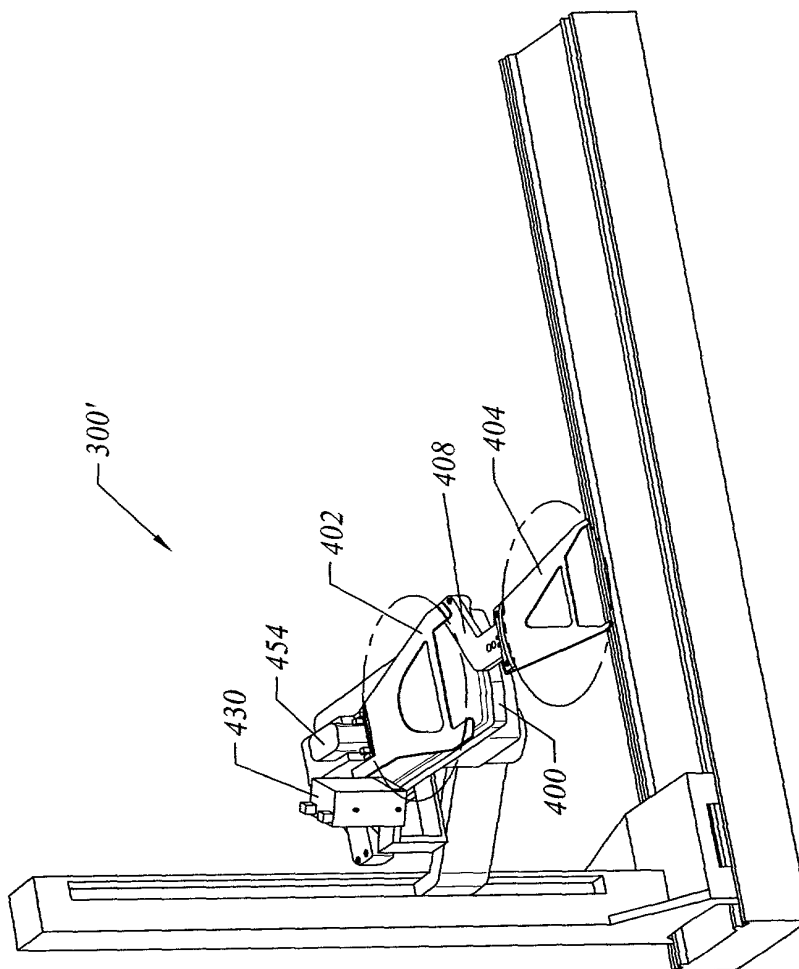


FIG. 25

207020" 2604800F

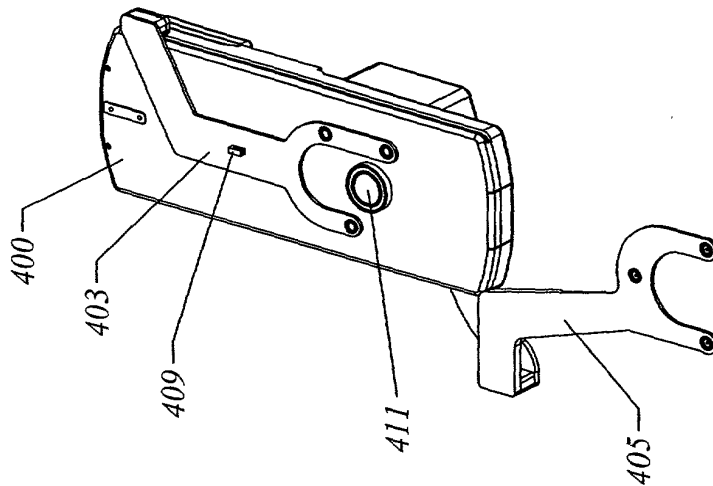


FIG. 26B

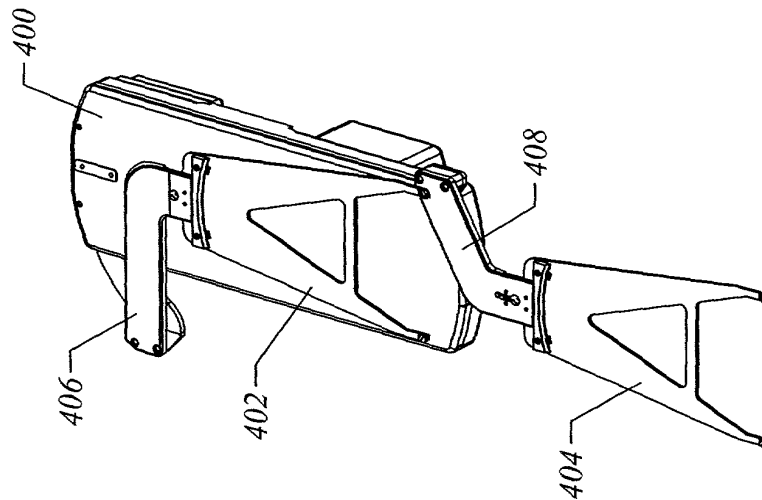
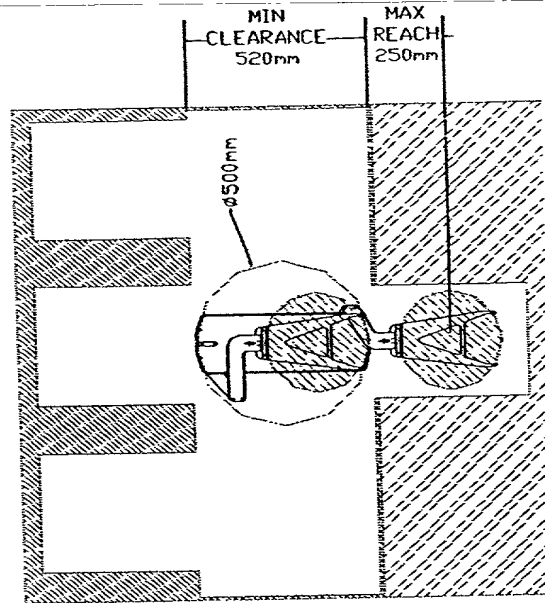


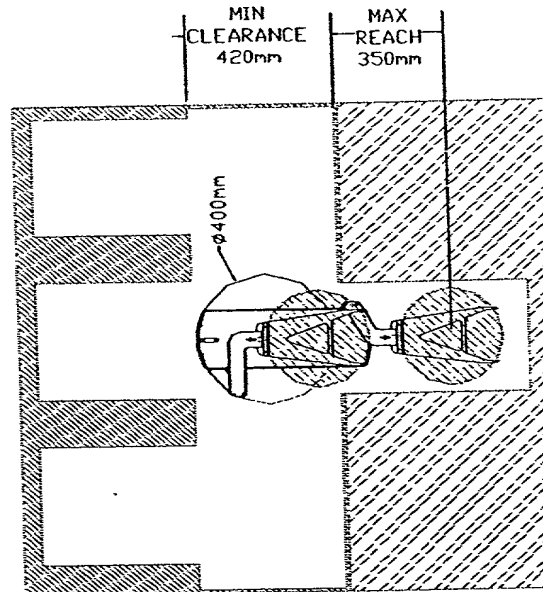
FIG. 26A

20190920 26043007

Conventional Linear Slide Robot



Off-Center Slide-Body (50mm offset)



EFEM Process Tool

FK-27A

FK-27B

Example motion sequence for rapid swap slide-body with off center rotation axis.

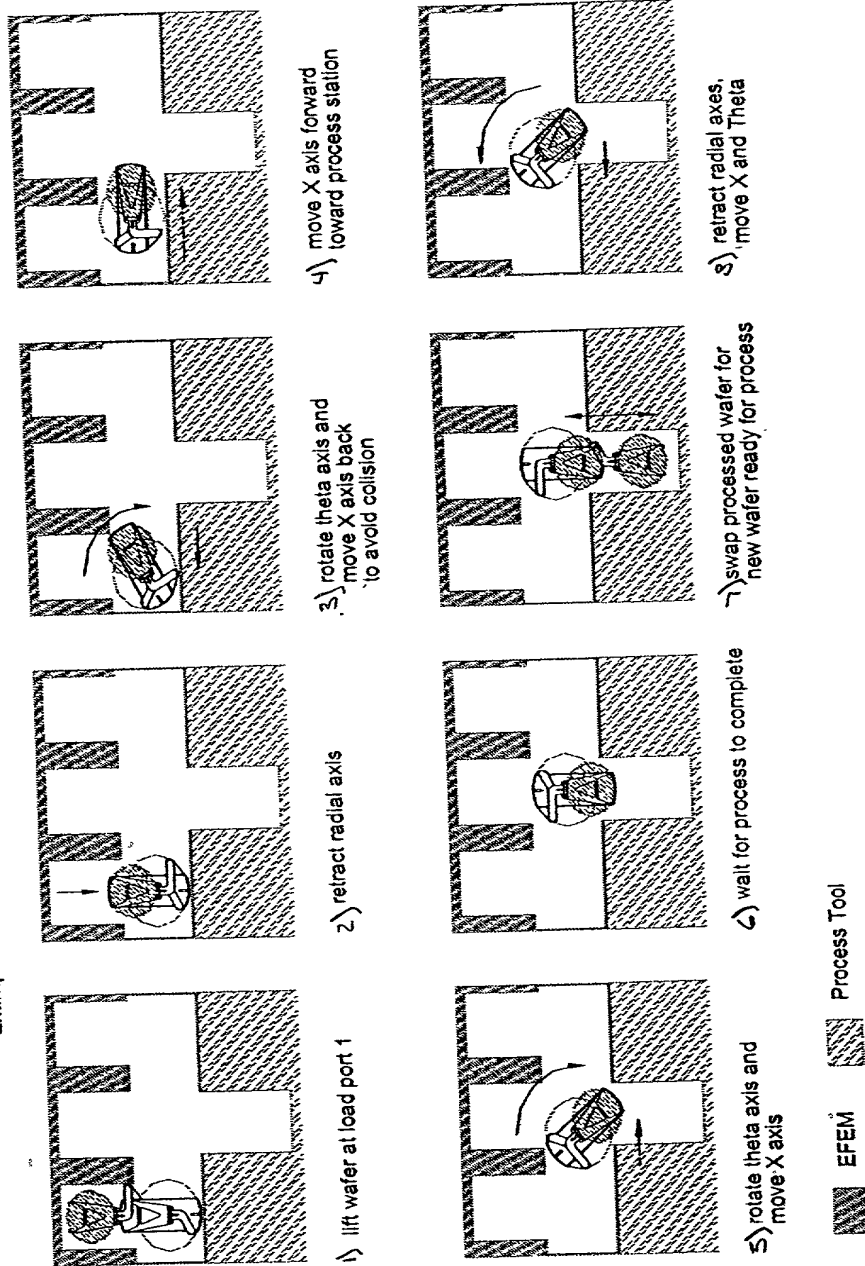


FIG. 28

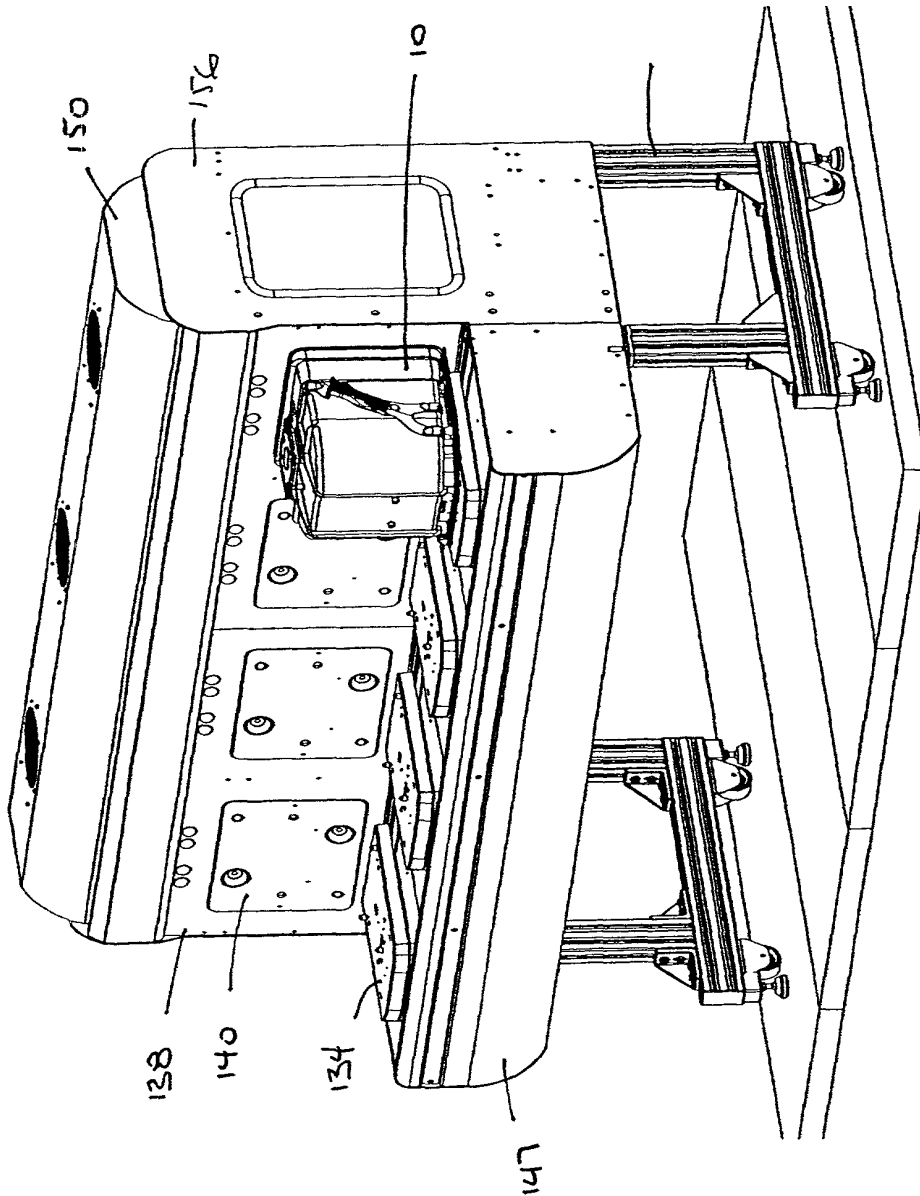


FIG. 29A

20080909 0000

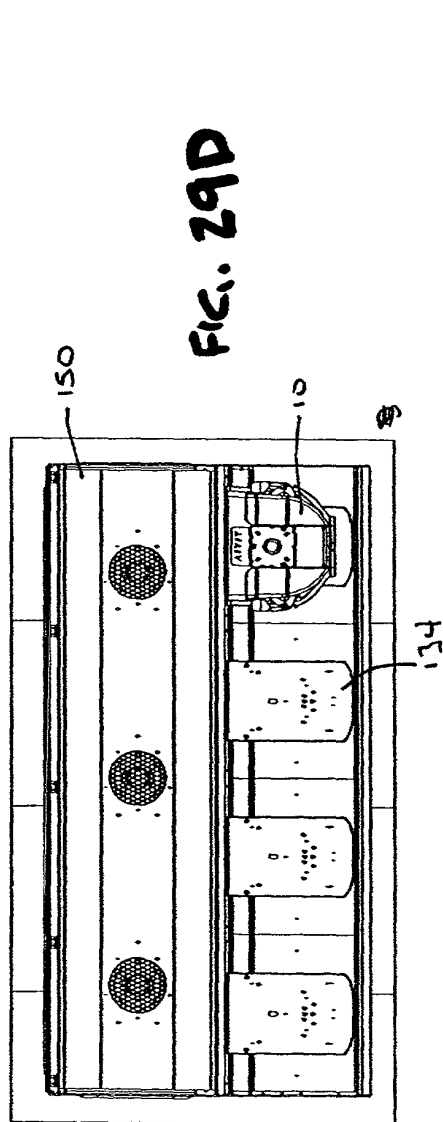


FIG. 29D

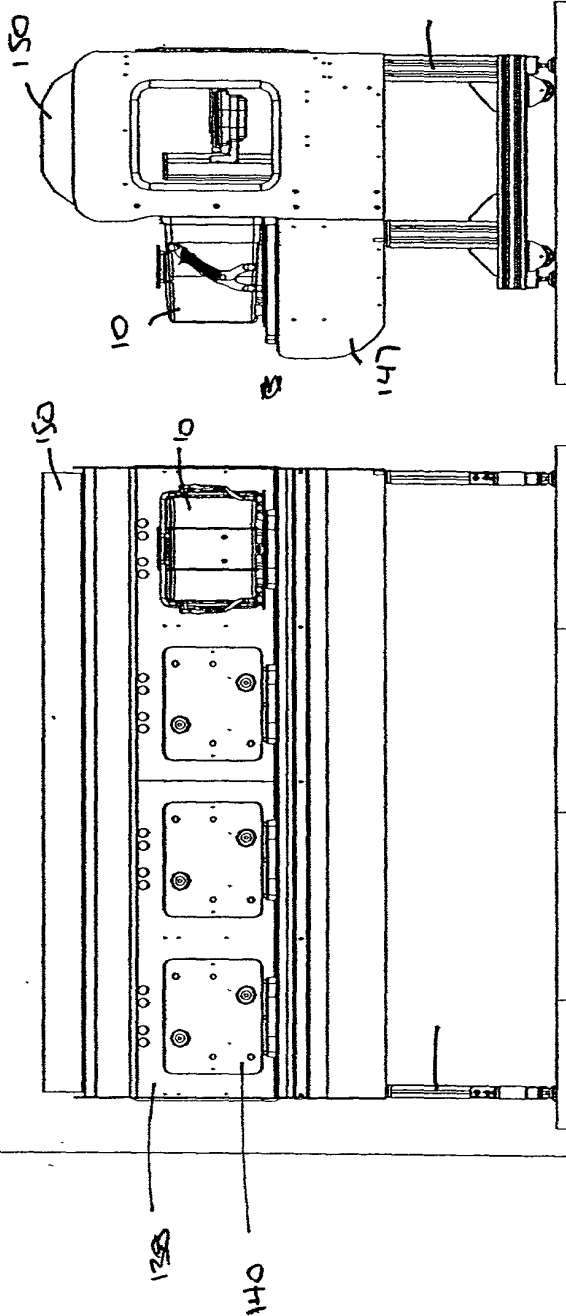


FIG. 29B

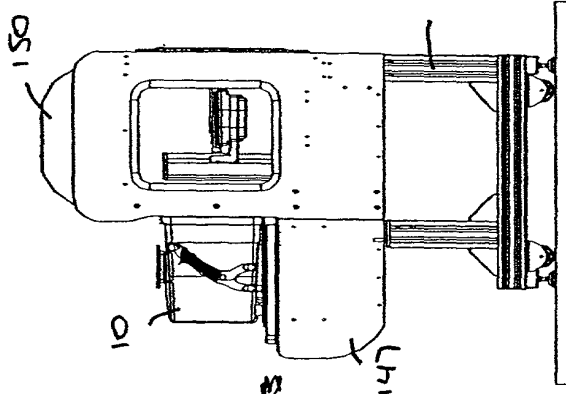


FIG. 29C

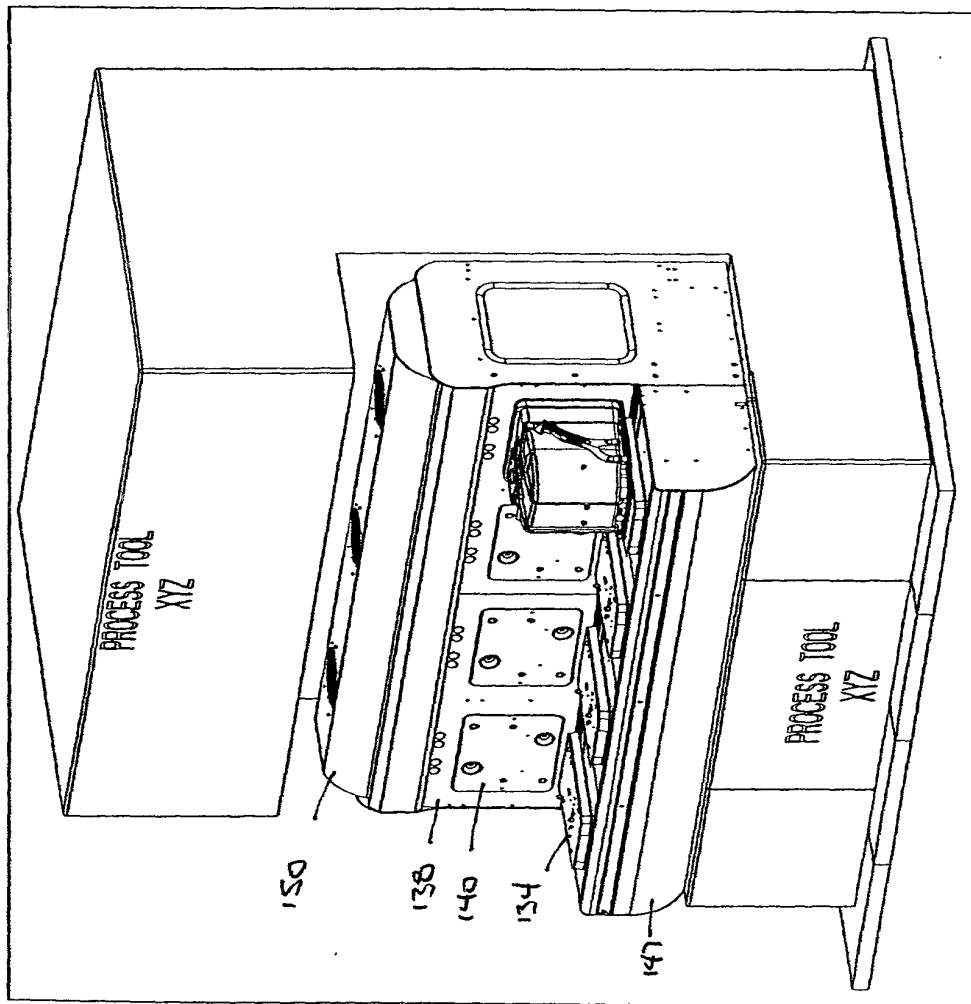


Fig. 30A

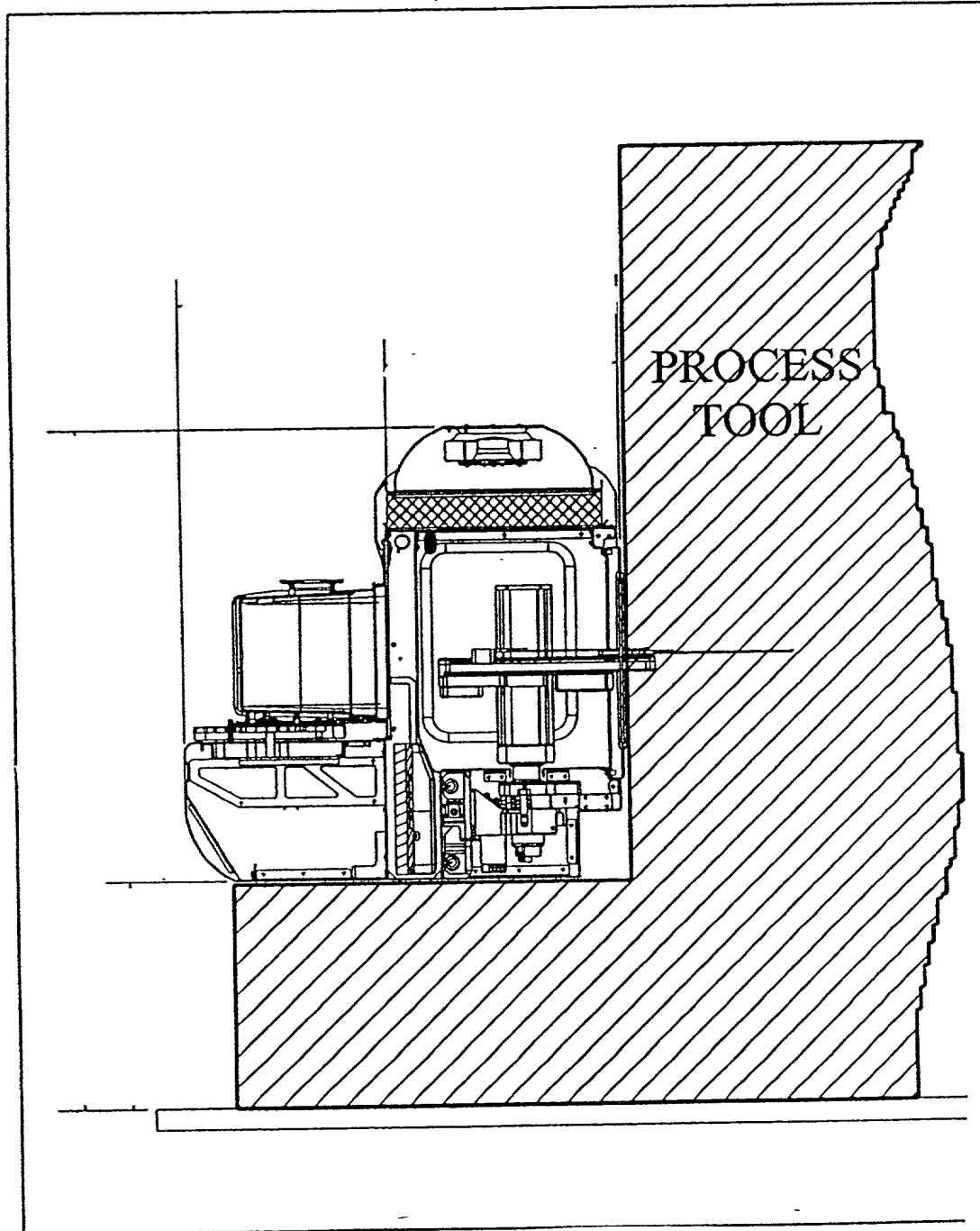


FIG. 30B

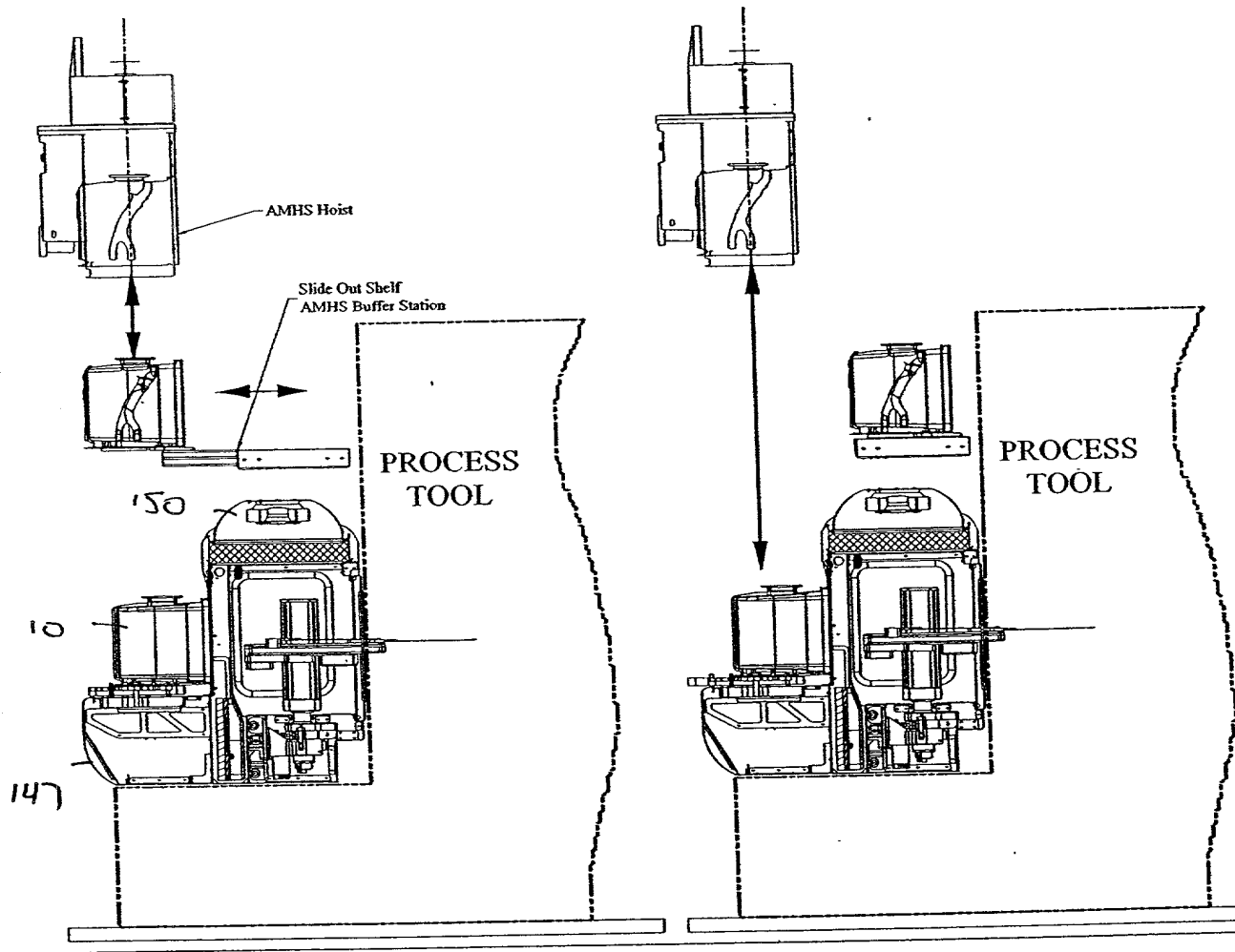


FIG. 31